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ESEC '91

3rd European Software Engineering
Conference, ESEC '91
Milan, Italy, October 21-24, 1991
Proceedings

Springer-Verlag

Lecture Notes in Computer Science 550

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Foreword

The third European Software Engineering Conference follows ESEC '87 and ESEC '89 which were held in Strasbourg and Warwick, respectively. This series of conferences was set up by the European computer societies with the aim of providing an international forum for researchers, developers and users of software engineering technology. The need for a meeting point to discuss new results and useful experiences was felt quite naturally in view of the large amount of high-quality software engineering research which originated in Europe and which was stimulated over the last years through major European research programmes.

ESEC '91 has been organized jointly with two other international events: the Sixth International Workshop on Software Specification and Design (IWSSD-6), and an industrially oriented symposium and fair on Software Quality (CQS '91). The synchronization of these three events aimed to offer a unique opportunity to combine advanced research, ongoing developments and current practice in the field.

It appeared from the beginning of ESEC that these conferences also attracted distinguished work from elsewhere in the world. Internationalization has become even more pronounced with ESEC '91 where 133 papers were submitted from 26 different countries spanning four continents. The papers in these proceedings reflect this expansion.

The 22 papers published here represent those judged best by the Program Committee. They cover a fairly broad range of themes such as formal methods and practical experiences with them, special techniques for real-time systems, software evolution and re-engineering, software engineering environments and software metrics. The reader will perhaps identify some trends that are emerging from these papers, such as the search for systematic approaches to handle real-time systems, the need to fill the gap between unusable but sound formal methods and used but unsound "arrows and boxes" techniques, the need for developing environments equipped with reasoning capabilities, or the wish to learn or to rebuild from existing products and processes.

Invited talks were organized to address important areas that were felt to be insufficiently covered by the regular papers. Perspectives on configuration management, software factories, user interface design, computer security, and technology transfer were discussed by well-known experts. A number of invited papers covering these themes have accordingly been added to the regular papers. A few position papers by panel participants have also been included to provide some flavour on these panels.

We would like to express our warmest thanks to all members of the Program Committee who have been working hard reviewing papers and making numerous suggestions regarding the organization of the conference. The final shape of the program owes much to their help and advice. We are also indebted to the other referees who provided additional assistance in the difficult process of selecting good papers.

The software crisis has been recognized for 25 years now. Some people are currently talking about a software engineering crisis, that might be measured in terms of the number of problems raised versus the number of problems really solved. We hope that the contents of these proceedings will make a modest contribution to decreasing this measure.

August 1991   Axel van Lamsweerde
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